BARNYARDS & BACKYARDS

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Managing price risk on the ranch – Part I

By James Sedman and John Hewlett

Recent articles have focused on the Z-F ranch, owned by Bob and Betsy Zomer, and their management of risk associated with drought.

We now turn to their marketing risk management strategy for the cattle. The Fremont County ranch runs 300 pairs and 150 yearling steers. From these numbers, they typically sell 100 head of 500-pound heifer calves and 150 head of 900-pound yearling steers in the fall.

We joined Bob and Betsy late in the spring last year and found them assessing their marketing plan for the fall. They were extremely pleased with the near-record prices they received the previous fall and were optimistic for the coming year. The Zomers wanted to find some way of ensuring or locking-in the record prices for cattle they were seeing. Looking at overall U.S. cattle numbers and reading several analysts' reports, the Zomers were extremely bullish on cattle prices.

For More Information

Livestock Risk Protection Insurance (LRP) could be a fit in your livestock operation, helping insure against risk of loss due to price declines. For more information on LRP, consult your crop insurance agent or visit the Western Risk Management Library online at agecon.uwyo.edu/riskmgt.

Marketing Risk Management Options

The Zomers were considering several options to address marketing risks:

They could utilize forward contracts or pricing, either direct or through a video auction. While prices for fall delivery were high historically, Bob believed they were undervalued compared with current prices. Bob had an offer of $1.10/pound for the steers and $1.40/pound for the heifers.

The Zomers could utilize the futures market, either hedging their cattle or using options. A local commodities broker has promised he can lock-in current high prices for the fall; however, the Zomers are leery of the commodities markets and the potential of paying margin calls. As with the forward contracting option, the Zomers are concerned with limiting their upside price potential.

The Zomers could use a Livestock Risk Protection (LRP) insurance policy under the Federal Crop Insurance Corporation program. LRP protects producers against falling prices based on a national index of current and expected prices. The Zomers' insurance agent presented them with a 21-week LRP policy for their steers and heifers that, at the 80-percent coverage level, would insure their cattle at $113.88 per cwt. The premium for this policy would be $1.223 per cwt for steers and heifers. Their total premium would be $1,968.42 (after subtracting the 13-percent premium subsidy of $294.13 from the total of $2,262.55) for the 1,850 total cwt insured. Prices would have to drop below the coverage price for an indemnity to be made.

Decision and Subsequent Peril

The Zomers considered their options at length and decided to go with a fourth option: do nothing and look to the fall to sell their cattle. They decided the costs associated with their risk management options were too high, both for the LRP contract and the potential margin calls with the futures market. The Zomers were convinced the high prices would hold through the fall.

Fast forwarding to late summer, flooding in the Midwest and an overall shortage of corn and feed grains forced corn prices to $9 per bushel. Coupled with a sharp slowdown in the overall economy, this caused the bottom to fall out of feeder and fed cattle markets.

In subsequent articles, we will consider how the alternative market risk management strategies might have helped protect the Zomers against declining markets.

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Water quality determines whether or not plants prolific or pitiful

By Karen Panter

H_2O. Such a simple molecule yet so important. Even in the backyard garden, water makes a huge difference in flowers, shrubs, trees, grasses, fruit, and vegetable plant growth and development.

Though variable, treated city water is usually of good quality. What if a surface source of water like a pond or stream is used? What about well water? These sources vary tremendously in quality, and it's important to know what's in the water used for irrigating landscape and interior plants.

What Makes Water Quality Poor?

Many types of contaminants can reduce water quality for use on plants. Particles in the water can make water quality dubious, especially for drip irrigation systems. Bits of dirt, metal, and algae can clog emitters on drip irrigation tubing rendering them useless.

High levels of sodium can damage horticultural plants. The SAR, or sodium adsorption ratio, is a very important number to have from a water test analysis. This tells the amount of sodium in the water relative to calcium and magnesium. The SAR should be less than 10.

Calcium, magnesium, and potassium are not taken up by the plant when there is too much sodium. Plants take up the sodium instead, leading to unhealthy plants due to deficiencies of calcium, magnesium, and/or potassium.

Bicarbonates are often found in the form of calcium bicarbonate or magnesium bicarbonate. Irrigation water high in these types of bicarbonates leaves behind insoluble calcium carbonate – otherwise known as lime when it evaporates. High carbonates also increase sodium hazard.

High levels of dissolved salts can create havoc with horticultural plantings. Salts are chemical compounds that break into two components when dissolved in water. One component is a positively charged cation such as calcium, potassium, magnesium, or sodium. The other component is a negatively charged anion such as phosphate, nitrate, sulfate, or chloride.

Salt levels are measured in terms of electrical conductivity, or EC. EC should be less than 2.0 deciSiemens/meter. Water high in EC can cause poor plant health due to nutritional imbalance problems. Water uptake by the plant is also decreased.

Salts that may be found in water include fertilizers and potassium chloride. Fertilizers can end up in water supplies if they are overapplied to plants. Any fertilizer not taken up by the plant can be carried down into ground water or may be washed into surface water sources.

What Happens to Plants Irrigated With Bad Water?

Poor-quality water causes nutritional imbalances and can also cause burning of root and leaf tips. Water high in bicarbonates when evaporated usually leaves behind a white residue, which may collect on foliage, blocking sunlight and decreasing photosynthesis rates. This will result in poor plant growth and lower yields of fruit and vegetable plants.

Also, high bicarbonate levels in combination with calcium and/or magnesium will often precipitate out – form insoluble solids that just sit in the soil. When this happens, two important and essential plant nutrients (calcium and magnesium) are no longer available to the plant.

High sodium in water can lead to "sodic" soils. Sodic soils form when water with high levels of dissolved sodium evaporates. The sodium left behind can make the soil form a sticky layer water cannot penetrate. It also creates nutritional problems when plants take it up instead of calcium, magnesium, and potassium. The result is deficiency in calcium, magnesium, and/or potassium.

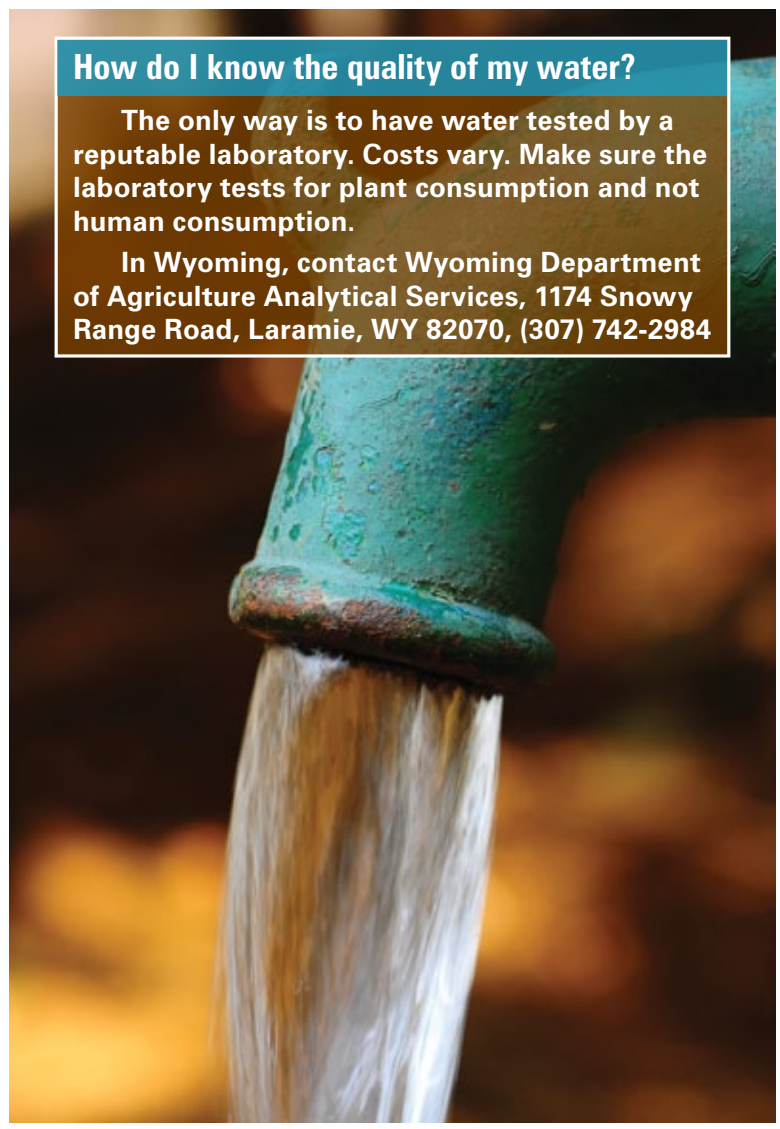
What If I have Poor Quality Water?

There are several things that can be done if forced to use poor quality water. First is to select plants that will tolerate the problem, whether it is high salts, high sodium, or whatever. Salt-tolerant plants suitable for Wyoming include asparagus, caragana, junipers, beets and squash. Salt-sensitive plants include lindens, carrots, onions, apples, chokecherries and raspberries.

Secondly, if the problem is salts and not sodium, leach the soil. This means periodically applying more water than needed to dissolve salts in the root zone and carry them away from the plants.

Third, is it possible to switch water sources? For example, collect and use rainwater when possible.

Fourth, there are methods to clean poor water quality (deionization, distillation, reverse osmosis), but these require special equipment. Softened water is never recommended for horticultural plants indoors or out. It is very high in either sodium or potassium.



For assistance in understanding and interpreting water test results, contact a local University of Wyoming Cooperative Extension Service office.

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